

# Effect of Mandatory Continuing Professional Development Programme on Scholastic Aptitude of Nurse Participants in Umuahia, NIGERIA

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## ABSTRACT:

Mandatory Continuing Professional Development Programme for Nurses is increasingly recognised as a route to needed quality enhancement among nurses. The aim of this study was to assess the effect of MCPDP on scholastic aptitude of nurse participants in Umuahia, Abia State, Nigeria. The study was carried out in January 2018. A one-group pretest-posttest quasi-experimental quantitative design was used. No sampling was done. All 112 records of participants who attended MCPDP in Umuahia, and met the inclusion criteria were enrolled into the study. A generic Brief Scholastic Aptitude Test for MCPDP Nurse-participants was the instrument of data collection. Data was collected at two points in time. Collated data was subjected to descriptive statistics. Student t-test was used to compare post-intervention test scores to pre-intervention test scores. Level of significance was set at  $P < 0.05$ . All data was analysed with the aid of Statistical Package for Social Sciences (SPSS) software version 21. Results revealed a significant difference in mean test scores between pre and post intervention test results ( $t = -26.16$ ,  $P < 0.00001$ ). In the pre intervention test, 35.7% of the participants scored above 24.9 (pass) on the scholastic aptitude test. In the post intervention test all (100%) participants scored more than 24.9 (pass). The study concluded that participation in MCPDP activities positively improves scholastic aptitude among nurses. The researcher recommends that Nurses should continually seek opportunities to participate in MCPDP activities for the benefits of increasing their scholastic aptitude.

**Keywords:** Continuing education, scholastic aptitude, quality of care, Nigeria

## INTRODUCTION:

Continuing professional education is presumably the longest phase of learning for nurses. It involves planned learning experiences which are expected to produce improvements in nurses' knowledge, attitude and skills [1]. Seminars, conferences and workshops often provide an avenue for continuing professional education and development.

The nursing profession like other health professions has been pressed on numerous fronts for accountability, through quality assessment and assurance in patient care [2]. Nursing texts suggest that continuing education

is a basic component of professionalism and can play the role of an organizing element in nursing function [1]. Nursing activities center on care of human beings and health advocacy, which can be considered a delicate area of practice. Based on the last sentence, one could presumed that in order to improve and provide the best patient care, nurses must mandatorily invest in educational opportunities that give them up to date knowledge and skill [3].

Continuing professional education may have a considerable impact on the knowledge and competences of the nurse [4]. The impact of continuing professional education is often

tested with brief professional scholastic aptitude tests which form the basis of decision making regarding who meets minimum set standards for re-licensing and further practice.

Continuing professional education is not without its own challenges. Eslamian and colleagues [1] noted that continuing professional education is posed with challenges such as being obligatory, lack of motivation for learning in some nurses, high number of participants squeezed into a class, lack of financial resource, shortage of educational buget, lack of adequate time for educational courses, shortage of seasoned resource persons, low applicability of lectures and poor correlation between continuing educational needs and conference outlines. Such challenges could foster dissatisfaction by the nurse-professional and the public who may begin to question the worth of continuing professional education and its effectiveness.

Due to the challenges posed by Continuing Professional Education on both nurse-professionals and society at large, documenting impact has been a continual pursuit in continuing education for health professionals [5]. Most of the studies carried out in continuing professional education context have been related to nurses' approaches, perception and attitudes toward continuing education, the effect of continuing professional education on nurses' professional competencies, assessment of continuing professional education needs, and provision of continuing professional education models. Unfortunately, findings from such studies are often not widely published.

Mandatory Continuing Professional Development Programme (MCPDP) is the Nigerian version of Continuing Professional Education for Nurses only. Since its commencement in principle in the year 2011, no published quality assessment studies

investigating its effectiveness or impact have been published. The paucity of empirical studies investigating the effectiveness of MCPDP amounts to a gap in knowledge that requires to be filled. The last sentence probably justifies the need for a study of this kind.

### RESEARCH OBJECTIVES

The aim of this study was to assess the effect of MCPDP on scholastic aptitude of nurse participants in Umuahia, Abia State, Nigeria. Specifically, the study sought to:

1. Assess baseline scholastic aptitude of MCPDP nurse participants.
2. Assess the post-intervention scholastic aptitude of MCPDP nurse participants.
3. Compare baseline and post-intervention scholastic aptitude of nurse participants.

### RESEARCH HYPOTHESIS

1. There is no significant difference between baseline and post-intervention scholastic aptitude of MCPDP nurse participants.

### METHODS

A one-group pretest-posttest quasi-experimental quantitative design was used for the study. The study was carried out in January 2018 among nurse participants who attended MCPDP in Umuahia, Abia State. This study was ethically approved by the Health Research Ethics Committee (HREC) of the Federal Medical Centre Umuahia (Approval number: FMC/QEH/G.596/Vol.10/298).

A total of 112 records of participants who attended MCPDP in Umuahia, and met the inclusion criteria were enrolled into the study. No sampling was done. The inclusion criteria were a valid full registration for the MCPDP, and 100% attendance on all five days of lectures and training sessions. The exclusion criterion

was incompletely recorded demographic information.

A generic standardized Brief Scholastic Aptitude Test for MCPDP Nurse-participants was used as instrument of data collection. The instrument was worded in English language and had 50 items. Using the instrument, data was collected at two points in time. The instrument was administered as pre-intervention test to assess the base line scholastic aptitude of the participants. After 5 days of lectures and training sessions, the same instrument was administered a second time as post-intervention test.

Collated data was subjected to descriptive statistics (frequency, percentage, mean and standard deviation). For test of hypothesis, Student t-test was used to compare post-intervention test scores to pre-intervention test scores for statistically significant difference. Significance level was set at  $P < 0.05$ . For the purpose of the study, all correct responses were awarded a value of 1, while all wrong responses were awarded a value of 0. A maximum score of 50 and a minimum score of 0 were possible.

Operationally, scores less than 24.9 were categorized as fail, and greater than 24.9 were categorized as pass. All data was organized and analysed with the aid of Statistical Package for Social Sciences (SPSS) software version 21 (SPSS inc., Chicago, IL, USA).

## RESULTS

The responses of 112 respondents were fit for analysis. The demographic characteristics of the participants are given in Table 1. Most of the participants were female (93.8%) and married (85%). More than half (56.6%) of the participants had Registered Nurse-Midwife educational qualification only.

Table 2 shows a comparison of the pre and post intervention test scores of study participants. Using student t-test, Table 2 revealed a significant difference in mean test scores between pre and post intervention test results ( $t = -26.16$ ,  $P < 0.00001$ ). In the pre intervention test 35.7% of the study participants scored more than 24.9 (pass) on the scholastic aptitude test. Nonetheless, in the post intervention test all (100%) study participants scored more than 24.9 (pass) on the scholastic aptitude test.

**Table 1: Socio-demographic characteristics of the study participants (N = 112)**

Category	Details
Gender, <i>n</i> (%)	
Male	7(6.2)
Female	105(93.8)
Marital Status, <i>n</i> (%)	
Single	16(14.3)
Married	96(85.7)
Educational Qualification, <i>n</i> (%)	
RN	6(5.4)
RN/RM	63(56.3)
RN/RM/Additional Specialty	23(20.5)
RN/RM/BN.Sc	17(15.2)
RN/ RM/BN.Sc/MN.Sc	3(2.6)

**Table 2:** Comparison of pre and post test scores of the study participants (N = 112)

Category		Pre-test	Post-test	df	t-test	P value
Grade	Score			111	-26.19	0.00001
Fail, <i>n</i> (%)	0 - 24	72(64.3)	0(0)			
Pass, <i>n</i> (%)	25-50	40(35.7)	112(100)			
Mean ( $\pm$ SD)		22.18 ( $\pm$ 5.86)	35.75 ( $\pm$ 4.16)			

Decision rule:  $P < 0.05$  is significant.

## DISCUSSION

Nursing theories and research-based evidence for practice continue to develop at a growing rate. The maintenance of professional competence remains an exercise of lifelong learning [6]. Evaluation remains an invaluable part of establishing the impact of an intervention, and the cornerstone of effectiveness and quality assurance processes. The emerging paradigm of continuing professional development aims to enhance practitioners' knowledge and practice with specific focus on improving outcome [7].

The results of the present study found a significant difference in test scores before and after MCPDP activities. Findings demonstrated that participation in MCPDP activities would result in significant increase in scholastic aptitude among nurse participants. The present finding is in line with the widespread notion that Continuing Professional Development Programme impacts positively on the nurse, patient and family outcomes [8]. The finding was supported by Wood [9] who found that Continuing Professional Development Programme has a positive effect on nurses as individuals. In addition Wood [9] noted that the positive effect of Continuing Professional Development Programme on nurses translated positively to quality delivery of patient care. Practitioners who participated in Continuing Professional

Development Programme were less likely to receive quality of care complaints [10].

In stark contrast to the present finding, Tame [11] argued that practice changes may not ensue following formal Continuing Professional Development Programme. In her study, Tame [11] found that while continuing professional education would not have a direct impact on practice, it resulted in increased scholastic aptitude and confidence among nurses. Nevertheless, the author further added that Continuing Professional Education led to intrinsic changes in nurses rather than direct behavioural change. The intrinsic change may boost nurses' confidence to question medico-nursing activities that are based on tradition, clinical experience, intuition, trial and error but not disciplined research. Based on the premise of the last sentence, one could logically infer that MCPDP directly improves scholastic aptitude but indirectly improves nursing practice.

## STUDY LIMITATIONS

The major limitation of the present study is testing. Testing refers to the effects of taking a pretest on people's performance on a posttest. It may be possible that administering the instrument had sensitized the respondents towards sourcing correct answers to instrument items which they may do irrespective of the intervention (MCPDP activities). In the absence of a control group

therefore, it would be more difficult to segregate the effects of the intervention (MCPDP activities) from the effects of the pretest.

Human beings are free living beings with constantly changing overt and covert processes as he interacts with his environment. The study could not control the processes occurring in the participants during the course of the study as a result of the passage of time rather than as a result of the independent variable (MCPDP). This may have introduced maturation threat to internal validity of the present study.

## CONCLUSION

The study concluded that participation in MCPDP activities positively improves scholastic aptitude among nurses. The researcher thus recommends that Nurses should continually seek opportunities to participate in MCPDP activities for the benefits of increasing their scholastic aptitude.

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**Author's contributions:** EC contributed to study conception, review of literature, data collection, analysis and interpretation of data, drafting and revision of the manuscript. DN and ISA contributed to data collection and

critical revision of the manuscript. All authors read and approved the final manuscript.

### Ethics approval

The study was approved by the Health Research Ethics Committee of Federal Medical Centre Umuahia Abia State on 21 December 2017 (Approval no. FMC / QEH / G.596 / Vol.10 / 298).

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**HEALTH RESEARCH ETHICS COMMITTEE (HREC)**  
21<sup>st</sup> December, 2017.

**Full Committee Approval**

Protocol's full title including official abbreviations:  
**EFFECT OF MANDATORY CONTINUING PROFESSIONAL DEVELOPMENT PROGRAM ON SCHOLASTIC APTITUDE OF NURSE PARTICIPANTS IN ABIA STATE, NIGERIA.**

Health Research Committee assigned Number: FMC/QEH/G.596/Vol.10/298  
 Name of Principal Investigator: Eleke, Chinemerem  
 Address of Principal Investigator: Continuing Education, Our Lady of Lourdes Hospital Complex Ihiala, Anambra State

Date of receipt of valid application: 14<sup>th</sup> November, 2017  
 Date of meeting when final determination of research was made: 14<sup>th</sup> December, 2017.

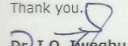
This is to inform you that the research described in the submitted protocol, the consent forms, advertisements and other participant information materials have been reviewed and given full approval by the Health Research Ethics Committee.

This approval dates from 14<sup>th</sup> December 2017, to 13<sup>th</sup> December, 2018. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these date. *All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study.* In multi year research, endeavour to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.

*The National Code for Health Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserved the right to conduct compliance visit to your research site without previous notification.*

You are please required to donate a copy of this research work to the Health Research Ethics Committee of the Federal Medical Centre, Umuahia.

Thank you.

  
**Dr. I.O. Iwegbu**  
 Chairman, HREC  
 For: Medical Director